

## PATENT COOPERATION TREATY


## PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT  
(PCT Article 36 and Rule 70)

REC'D: 06 DEC 2004

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Applicant's or agent's file reference 100883-1 WO	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of international Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/SE 03/01707	International filing date (day/month/year) 05.11.2003	Priority date (day/month/year) 07.11.2002
International Patent Classification (IPC) or both national classification and IPC C07D295/155		
Applicant ASTRAZENECA AB et al.		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of    sheets.</p>		
<p>3. This report contains indications relating to the following items:</p> <p>I    <input checked="" type="checkbox"/> Basis of the opinion</p> <p>II   <input type="checkbox"/> Priority</p> <p>III <input checked="" type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV   <input type="checkbox"/> Lack of unity of invention</p> <p>V    <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI   <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>		
Date of submission of the demand  14.05.2004	Date of completion of this report  03.12.2004	
Name and mailing address of the International preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer  Zellner, A  Telephone No. +49 89 2399-8078	



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/SE 03/01707

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-58 as published

**Claims, Numbers**

1-15 as published

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

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**III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 9-11

because:

☒ the said international application, or the said claims Nos. 9-11 relate to the following subject matter which does not require an international preliminary examination (specify):

**see separate sheet**

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☐ no international search report has been established for the said claims Nos.

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

☐ the written form has not been furnished or does not comply with the Standard.

☐ the computer readable form has not been furnished or does not comply with the Standard.

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	1-15
	No: Claims	
Inventive step (IS)	Yes: Claims	1-15
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-8, 12-15
	No: Claims	

2. Citations and explanations

**see separate sheet**

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The following documents (D) are referred to in this communication; the numbering will be adhered to in the rest of the procedure:

D1= WO-A-93 15062

D2= WO-A-02 094794

**item III**

For the assessment of the present claims 7-9 on the question whether they are industrially applicable, no unified criteria exist in the PCT Contracting States. The patentability can also be dependent upon the formulation of the claims. The EPO, for example, does not recognize as industrially applicable the subject-matter of claims to the use of a compound in medical treatment, but may allow, however, claims to a known compound for first use in medical treatment and the use of such a compound for the manufacture of a medicament for a new medical treatment.

**item V**

1. Novelty (Art. 33(2) PCT)

Document D1 discloses compounds of general formula IV, from which the presently claimed compounds differ in that they carry a group  $-N(R^2)-C(O)-O-R^3$  whereas compounds IV according to D1 require a group  $-OH$ ,  $NH_2$ ,  $-CH_2OH$  and derivatives thereof in the same position (substituent Z) (D1: p. 33). Novelty for the subject-matter of present claim 1 can thus be acknowledged. The same applies for independent claims 6-8 and 12-15 as well as the dependent claims. The application thus fulfils the requirements of Art. 33(2) PCT.

2. Inventive step (Art. 33(3) PCT)

It would appear that document D2 does not disclose a teaching for the skilled person to amend compounds disclosed therein according to present claim 1 in order to solve the technical problem of providing 4-(phenyl-piperazinyl-methyl) benzamide derivatives as

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ligands for delta receptor. Presence of an inventive step can thus be acknowledged as well (Art. 33(3) PCT).

3. Industrial applicability (Art. 33(4) PCT)

Can be acknowledged for claims 1-8 and 9-15.

4. Document D2 was published after the priority date of the present application but before its international filing date. Its content would be considered as forming part of the state of the art if the priority of the present application was found to be invalid. When entering the regional european phase, the said document will also be considered for the question of novelty in case the priority is validly claimed.